



WYOMING MINING ASSOCIATION

January 16, 2009

Mr. Craig Hults
Department of Environmental Quality
Land Quality Division
122 West 25th Street
Herschler Building – 3W
Cheyenne, WY 82002

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Jim Ruby, Executive Secretary
Environmental Quality Council

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LQD

**Re: Environmental Quality Council – Docket No. 08-4101
WDEQ/LQD Rule Package 1-S - Revegetation Success Performance
Standards**

Dear Mr. Hults,

Thank you for the opportunity to comment on the 1-S rule package. We have worked with DEQ for over 5 years to update and refine the vegetation rules in Chapters 1, 2, and 4. After many meetings and myriad conversations and debates, our group, DEQ and WMA were able to reach agreement on all but very few items. We would like to mention a few things that had simply been omitted and very few cases where WMA and DEQ were not able to come to agreement. Where appropriate, we have proposed alternate wording for the rule package.

Please note all references to Rule Package 1-S are to the Statements of Reason version titled "Rule Package" on the EQC website under Docket No. 08-4101.

Editorial Changes

Definition of Belt Transect

Chapter 1, Sec. 2(m) page 12 of 149 – the definition of "Belt transect" as shown in the Statement of Reasons version of the Rule Package is correct and accurately reflects the discussion at the Land Quality Advisory Board Meeting on January 7, 2008. At that time it was agreed upon that a belt transect must be a minimum of 50 meters in length. The other Chapter 1 documents do not reflect this change, i.e., Chapter 1 – Strike and Underline is incorrect on page 1-2; and Chapter 1 – Clean Copy is incorrect on page 1-2. WMA recommends all documents be revised to be similar to the Statement of Reasons version.

Grazingland Species Diversity

Chapter 4, Appendix 4A, Sec. II, page 125 of 149 – the WMA points out an error between the Grazingland species diversity requirement in the Statement of Reasons version of the Rule Package and the other versions. At the Land Quality Advisory Board Meeting on January 7, 2008, it was agreed to delete "...and/or fish and wildlife habitat..." and replace it with "...shrub mosaics..." as shown on page 125 of 149. The other Appendix 4A documents do not reflect this change, i.e., Chapter 4, Appendix 4A – Strike and Underline is incorrect on page 4A-1; and Chapter 4, Appendix 4a – Clean Copy is incorrect on page 4A-1.

WMA recommends all documents be revised to be consistent with the Statement of Reasons version.

Comments and Suggested Alternative Wording

Revegetation Success Standards for Grazing and Pastureland Species Diversity

The currently approved revegetation success standards in Chapter 4, Sec. 2(d)(ii)(B)(I) – page 107 of 149 - require that “the species diversity and composition are suitable for the approved postmining land use.” (see Item (3) under the above referenced rule). This also meets the federal requirements.

The proposed semi-quantitative standards defined in Appendix 4A require a predetermined average number of vegetative species and life form frequency in order to meet the diversity and composition success standard. This proposed rule would exceed the federal requirement. While the WMA and WDEQ agreed to this concept, the intent was to determine the standard numbers required prior to rule-making. This has not been done. WMA is reluctant to support a standard that is not finalized. We formally request that WMA and WDEQ continue to collaborate on a guideline that determines the standard for species diversity and composition.

Definition of Species Lacking Creditable Value

WMA proposes to revise the definition of Species Lacking Creditable Value (SLCV) in Chapter 1. The proposed LQD definition of SLCV has been expanded beyond the initial agreement between WMA and LQD. The proposed LQD definition states that all SLCV be excluded for cover, production, species diversity and composition evaluations. WMA agreed to the concept of excluding all of these species in evaluations of production, species diversity and composition. However, regarding cover evaluations, WMA proposes that the rule not be changed to exclude any species except those noxious weeds listed under the Wyoming Weed and Pest Control Act.

Lest there be any misrepresentation, WMA recognizes that annual weeds, such as annual bromes can be problematic invasive species of great concern. For example cheatgrass and Japanese brome are a problem in the West and it is no surprise that they are also present in and around mining areas in Wyoming. WMA operators do not want these plants on reclamation and most take some action to control them. Even utilizing the best available technology for revegetation practices and control efforts, annual bromes can become established to some degree on reclaimed lands.

Mines have long dealt with the annual weed problem. Annual weed seed is often legally present in the native seed we purchase for reclamation. Annual weed seed is present in the topsoil we salvage for reclamation. Companies utilize various husbandry practices to control annual weeds, but the very composition of reclaimed land provides better growth medium and opportunities for all plants than the native environments.

Therefore, WMA objects to changes to the currently approved rule which would exclude annual weeds for cover evaluation. While we do not cultivate annual weeds or encourage their existence in the reclaimed lands, we do not feel we should be shackled with a change in regulation that could deny bond release, especially in drought years.

Vegetation cover is included in calculations for sediment control release and actually annual weeds function to stabilize the ground, particularly in drought situations. Please consider the following points which support retaining annual weeds for cover evaluation:

- Total vegetative cover is included as a performance standard to ensure that erosion is minimized on reclaimed lands. The current Rules and Regulations demonstrates this with the following definition in Chapter 1:

“Cover” means vegetation, litter, and rock over the soil which intercepts rainfall.

Therefore, a measure of all vegetative cover indicates the amount of erosion protection provided by vegetation.

- The evaluation of species for revegetation success should be made under the requirements for species diversity and composition and not as part of the cover performance standard. An evaluation of species as part of the cover requirements is not needed
- The annual brome species, given the right environmental conditions, can be a notable proportion of total vegetative cover on both reclamation and native ground and can impact cover evaluations. While these species are not desirable on reclaimed or native lands, they do provide a cover function by intercepting rainfall. As part of the normal lifecycle of these winter annuals, they have leaves which live into and, often, throughout the winter. These leaves are held immediately against the ground surface. In this fashion they exploit the warm boundary layer there and provide effective erosion control during months when most other herbaceous plants are dormant. The value of cheatgrass in erosion control was recognized early on by Stewart and Hull (1949, p. 67).
- An operator may request that a reclamation area be released from sediment control via a Sediment Control Release (SCR) evaluation package. Part of the evaluation is an estimate of total vegetative cover. The current method of evaluation of whether an area is erosionally stable enough to be released from sediment control includes vegetative cover of all species. Therefore, if total vegetative cover which now includes annual weeds is adequate for the SCR analysis, then total vegetative cover which includes the annual weeds should be acceptable for the final total vegetative cover evaluation for bond release.


WMA offers the following language as the definition of SLCV.

Page No.	WMA Proposed Language	Current Package 1-S Language
37	Chapter 1. Section 2.(ef) “Species lacking creditable value” means those species which will not be credited or counted towards meeting revegetation success standards.	Chapter 1. Section 2.(ef) “Species lacking creditable value” means the cover and production of these species will be estimated but will not be credited or counted towards meeting the revegetation

	<p>(i) For the revegetation success standards for production and species diversity and composition, the species lacking creditable value include: noxious weeds listed under the Wyoming Weed and Pest Control Act, <i>Bromus japonicus</i>, <i>Bromus tectorum</i>, <i>Taeniatherum caput-medusae</i>, <i>Halogeton glomeratus</i>, <i>Kochia scoparia</i> and <i>Salsola tragus</i> and all synonyms for these species as listed in the Natural Resources Conservation Service's Plants Database.</p> <p>(ii) For the revegetation success standard for cover, the species lacking creditable value include: noxious weeds listed under the Wyoming Weed and Pest Control Act.</p>	<p>success standards for cover, production or species diversity and composition. Species lacking creditable value include noxious weeds listed under the Wyoming Weed and Pest Control Act, <i>Bromus japonicus</i>, <i>Bromus tectorum</i>, <i>Taeniatherum caput-medusae</i>, <i>Halogeton glomeratus</i>, <i>Kochia scoparia</i> and <i>Salsola tragus</i> and all synonyms for these species as listed in the Natural Resources Conservation Service's Plants Database.</p> <p><i>The definition of species lacking creditable value is required to not credit for revegetation success those species that have limited or no value in support of the land uses and, thus, are not assigned value in quantitative estimates of percent absolute vegetation cover nor annual herbaceous production nor semi-quantitative descriptions of species diversity and species composition.</i></p>
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We would like to stress once again that the issues DEQ and WMA agreed upon far exceed the few comments we offer here. However, we feel strongly about the suggested changes and the previously mentioned comments and appreciate your review and consideration.

Sincerely,



Marion Loomis
Executive Director
Wyoming Mining Association

References Cited:

Stewart, G. and A.C. Hull. 1949. Cheatgrass (*Bromus tectorum* L.) – an ecologic intruder in southern Idaho. *Ecol.* 20: 58-74.